

**WHAT IS CLAIMED IS:**

1. A digital video recording apparatus, comprising:  
means for producing a digitally encoded audio stream;  
means for detecting a change in an audio mode; and  
means for reducing an audio output level beginning before said change,  
and lasting until after said change, to produce an output audio signal.
2. A digital video recording apparatus, according to claim 1, further comprising:  
means for multiplexing a digitally encoded video signal to produce an output video signal; and  
means for multiplexing said output audio signal and said output video signal to produce an output system stream.
3. A digital video recording apparatus, comprising:  
video encoding means for compressing and digitally encoding a video signal;  
audio encoding means for digitally encoding an audio signal;  
system encoding means for multiplexing said video signal with said audio signal to produce a system stream output; and  
control means for controlling said audio encoding means to lower an audio output level before an audio encoding bit rate is changed, and restoring said audio output level after said audio encoding bit rate is changed.
4. A digital video recording apparatus, comprising:  
video encoding means for compressing and encoding a video signal input;  
audio mode judging means for judging an audio mode of an audio signal input;

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audio encoding means for encoding said audio signal input;  
system encoding means for multiplexing an encoded video-encoded stream and an encoded audio-encode-stream and generating a system stream;

video recording control means for controlling said video encoding means,  
said audio encoding means, and said system encoding means, and

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said video recording control means controls said audio encoding means to permit, when data, of said audio mode that has been judged by said audio mode judging means, changes, an audio output level to lower to a first desired condition, an audio encoding condition to change, and thereafter said audio output level to raise again to a second desired condition.

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5. A digital video recording apparatus, according to claim 4, wherein:  
said data of said audio mode includes at least one of a difference in stereo sounds, monaural sounds, multiplex sounds, number of channels, and an encoding bit rate.

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6. A digital video recording apparatus, according to Claim 5, wherein:  
said video recording control means controls said audio encoding means and provides that, when said audio mode changes, said audio output level is lowered to zero, and said audio encoding condition is then changed, and thereafter said audio output level is raised to an original level again.

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7. A digital video recording apparatus, according to Claim 4, wherein:  
said data of said audio mode includes at least one of a difference in stereo sounds, monaural sounds, multiplex sounds, number of channels, and an encoding bit rate; and

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said video recording control means controls said audio encoding means and provides that, when said audio mode changes, said audio output level is

lowered to zero, and said audio encoding condition is then changed, and thereafter said audio output level is raised to an original level again.

8. A digital video recording apparatus, comprising:

video encoding means for compressing and encoding a video signal input;

5 audio encoding means for encoding an audio signal input;

system encoding means for multiplexing an encoded video-encode stream and an encoded audio-encode stream and generating a system stream output;

10 video recording control means for permitting control of said video encoding means, said audio encoding means, and said system encoding means; and

15 said video recording control means controls said audio encoding means to permit, when an audio encoding condition changes, an audio output level to lower, and an audio encoding bit rate is then changed, and restoring said audio output level afterward.

9. A digital video recording apparatus, according to Claim 8, wherein:

20 said audio encoding condition includes one of a difference in stereo sounds, monaural sounds, and multiplex sounds of audio encoding, number of channels, and an encoding bit rate.

10. A digital video recording apparatus, according to Claim 9, wherein:

25 said video recording control means controls said audio encoding means so that, when said audio encoding condition changes, said audio output level is lowered to zero, and an audio mode is then changed, and thereafter said audio output level is raised to an original level again.

11. A digital video recording apparatus, according to claim 8, wherein:

said audio encoding condition includes one of a difference in stereo sounds, monaural sounds, and multiplex sounds of audio encoding, number of channels, and an encoding bit rate; and

5 said video recording control means controls said audio encoding means so that, when said audio encoding condition changes, said audio output level is lowered to zero, and an audio mode is then changed, and thereafter said audio output level is raised to an original level again.

12. A digital video recording apparatus comprising:

video encoding means for compressing and encoding a video signal input and outputting a encoded video-encode stream;

audio mode judging means for judging an audio mode of an audio signal input and producing an audio mode information;

audio encoding means for encoding an audio signal input and outputting an encoded audio-encode stream;

15 system encoding means for multiplexing said encoded video-encoded stream and said encoded audio-encode stream and generating a system stream output;

video recording control means for controlling said video encoding means, said audio encoding means, and said system encoding means, wherein said video recording control means controls said audio encoding means and provides that, when data of said audio mode changes, an audio output level is lowered to zero, and an audio encoding condition is then changed, and thereafter said audio output level is raised to an original level again; and

20 25 said data of said audio mode includes at least one of a difference in stereo sounds, monaural sounds, multiplex sounds, number of channels, and an encoding bit rate.